FIG.1

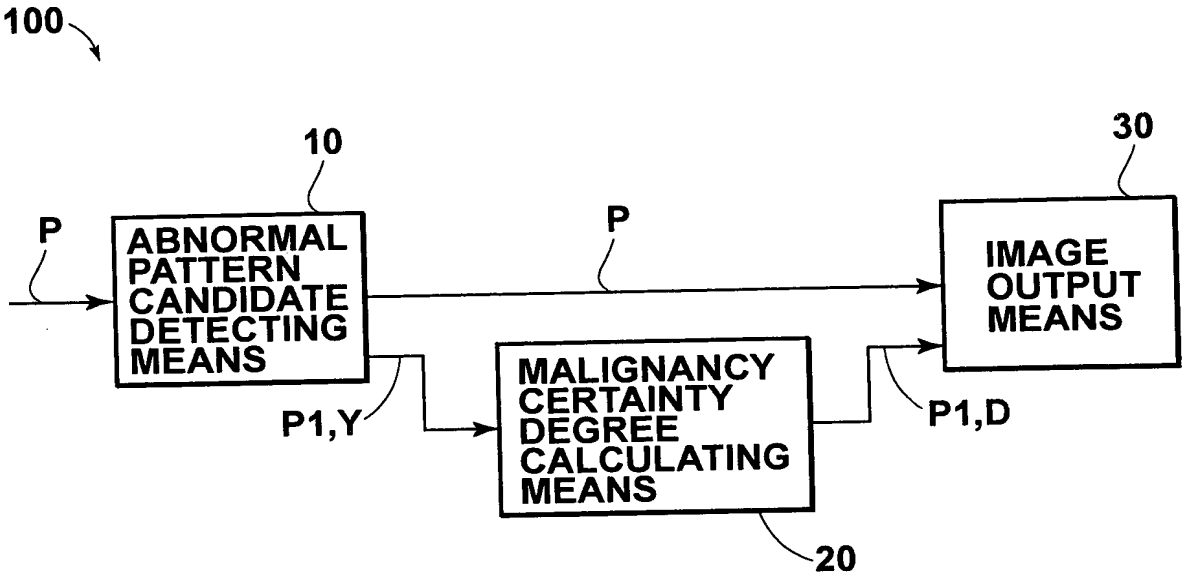

100
10
30
P
ABNORMAL PATTERN CANDIDATE DETECTING MEANS
P
IMAGE OUTPUT MEANS
P1,Y
MALIGNANCY CERTAINTY DEGREE CALCULATING MEANS
P1,D
20

FIG.2A

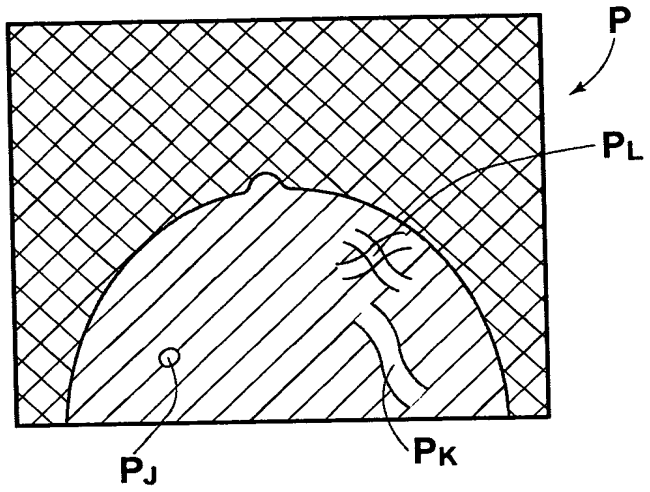


FIG.2B

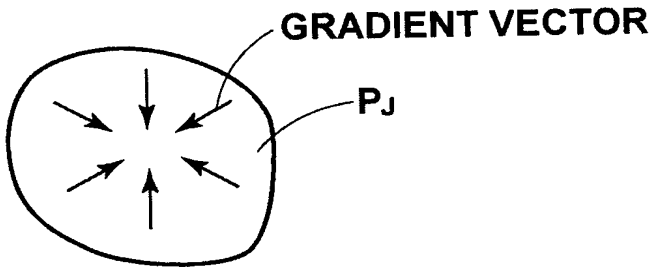


FIG.2C

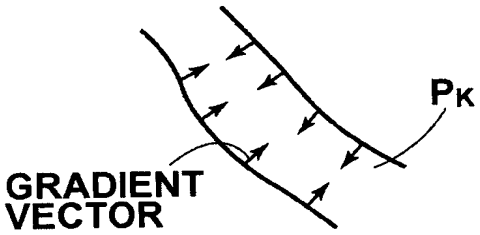


FIG.2D

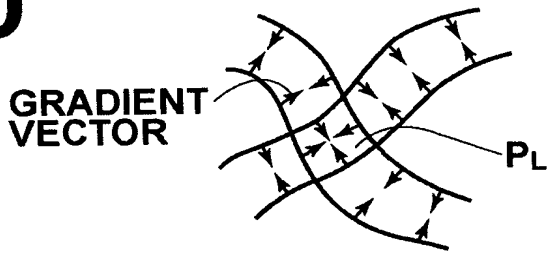


FIG.3

f_7	f_6	f_5	f_4	f_3
f_8				f_2
f_9		PIXEL j		f_1
f_{10}				f_{16}
f_{11}	f_{12}	f_{13}	f_{14}	f_{15}

FIG.4

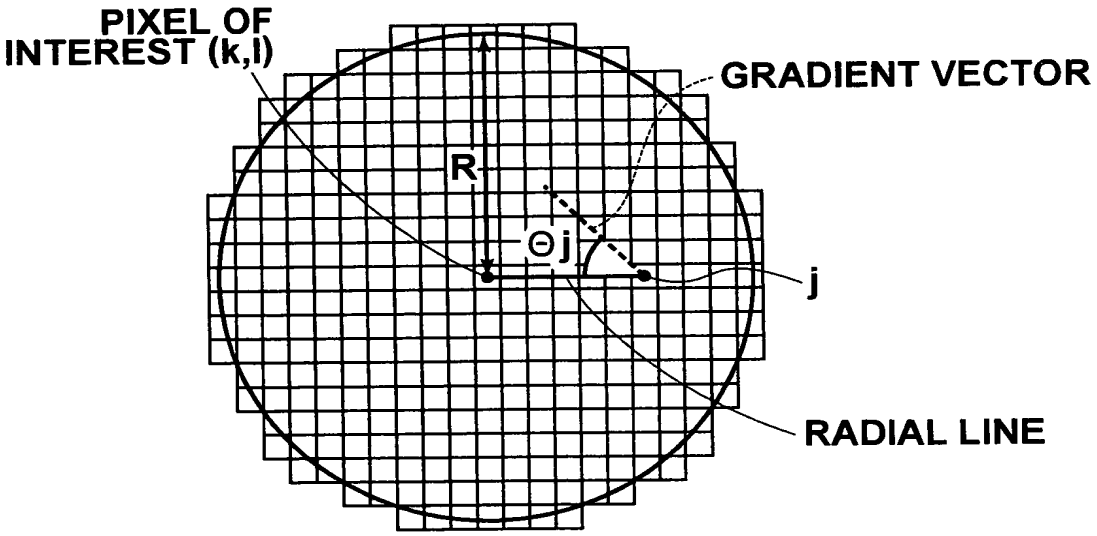


FIG.5

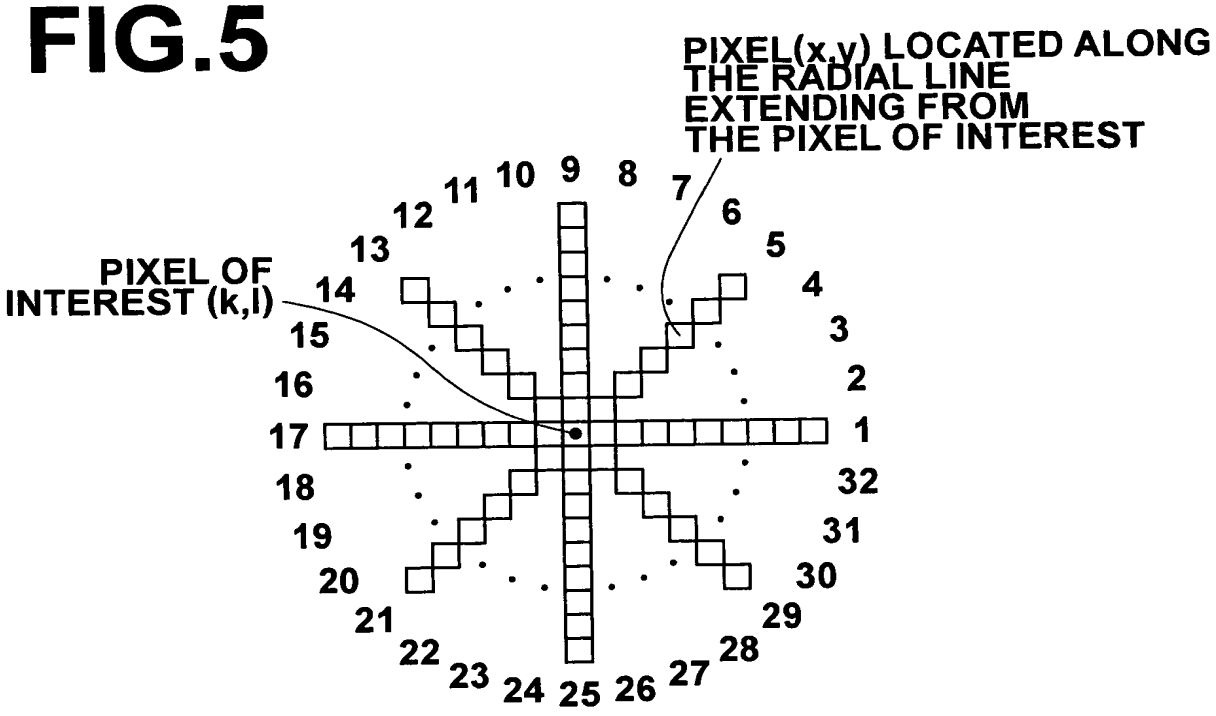

PIXEL(x,y) LOCATED ALONG THE RADIAL LINE EXTENDING FROM THE PIXEL OF INTEREST
PIXEL OF INTEREST (k,l)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

FIG.6A

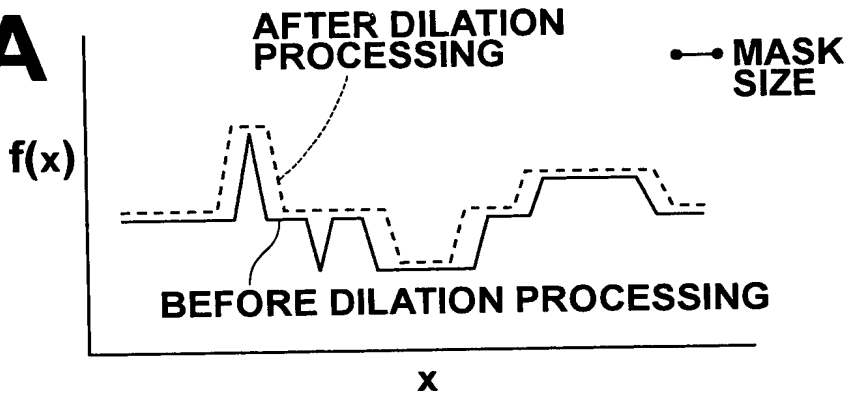


FIG.6B

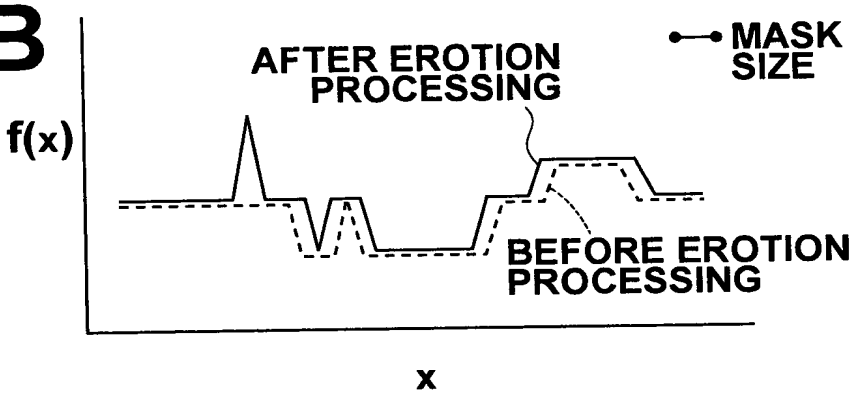


FIG.6C

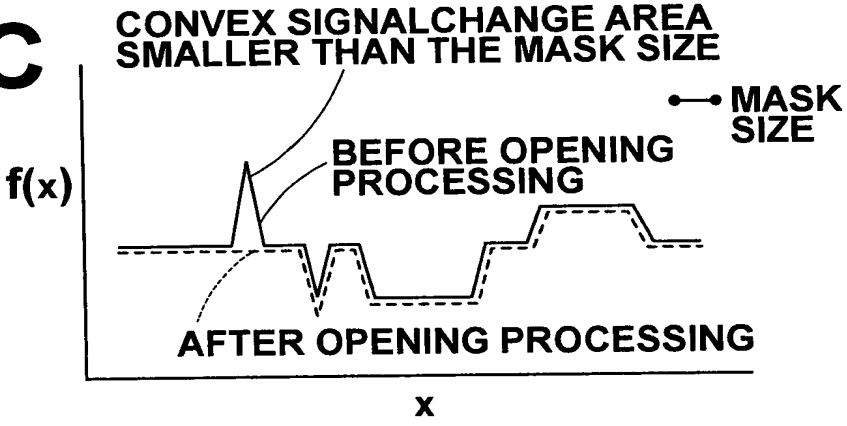


FIG.6D

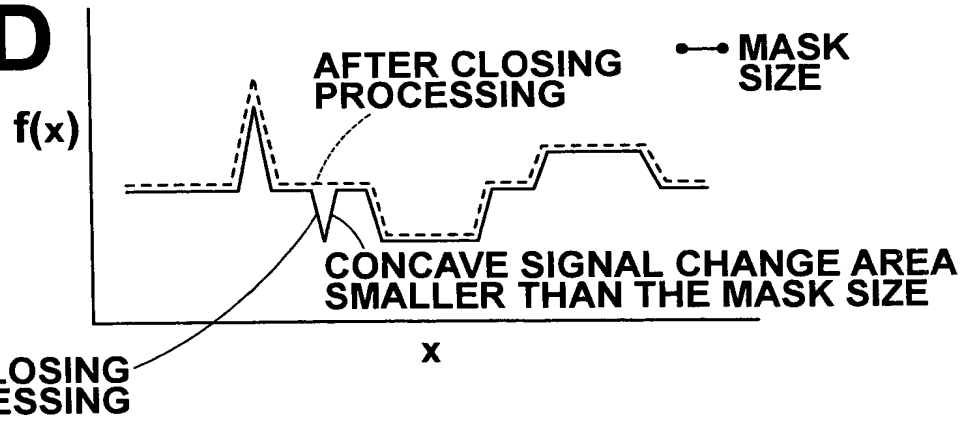


FIG.7

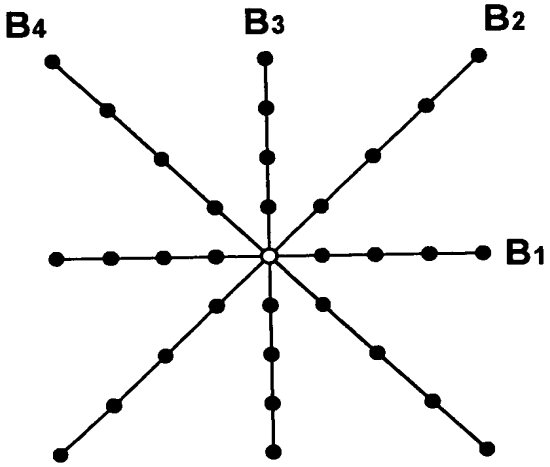


FIG.8

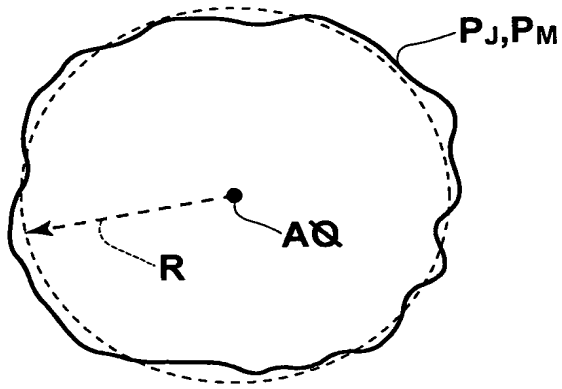


FIG.9

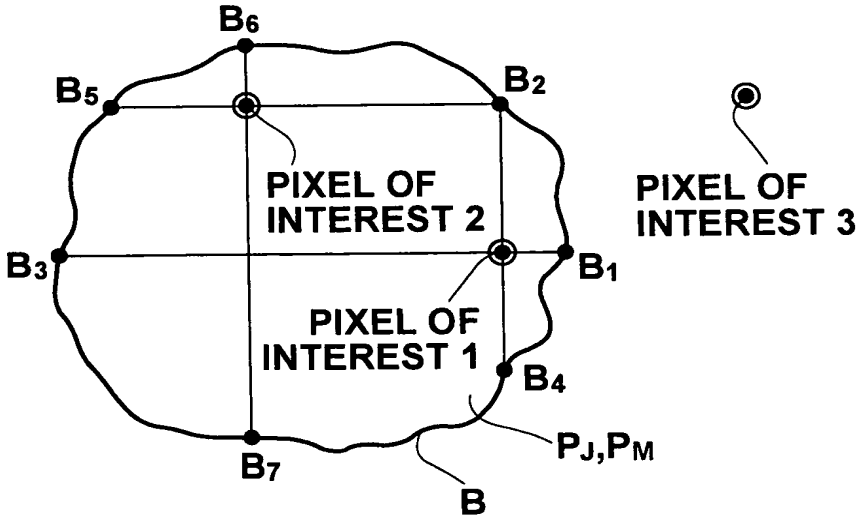


FIG.10

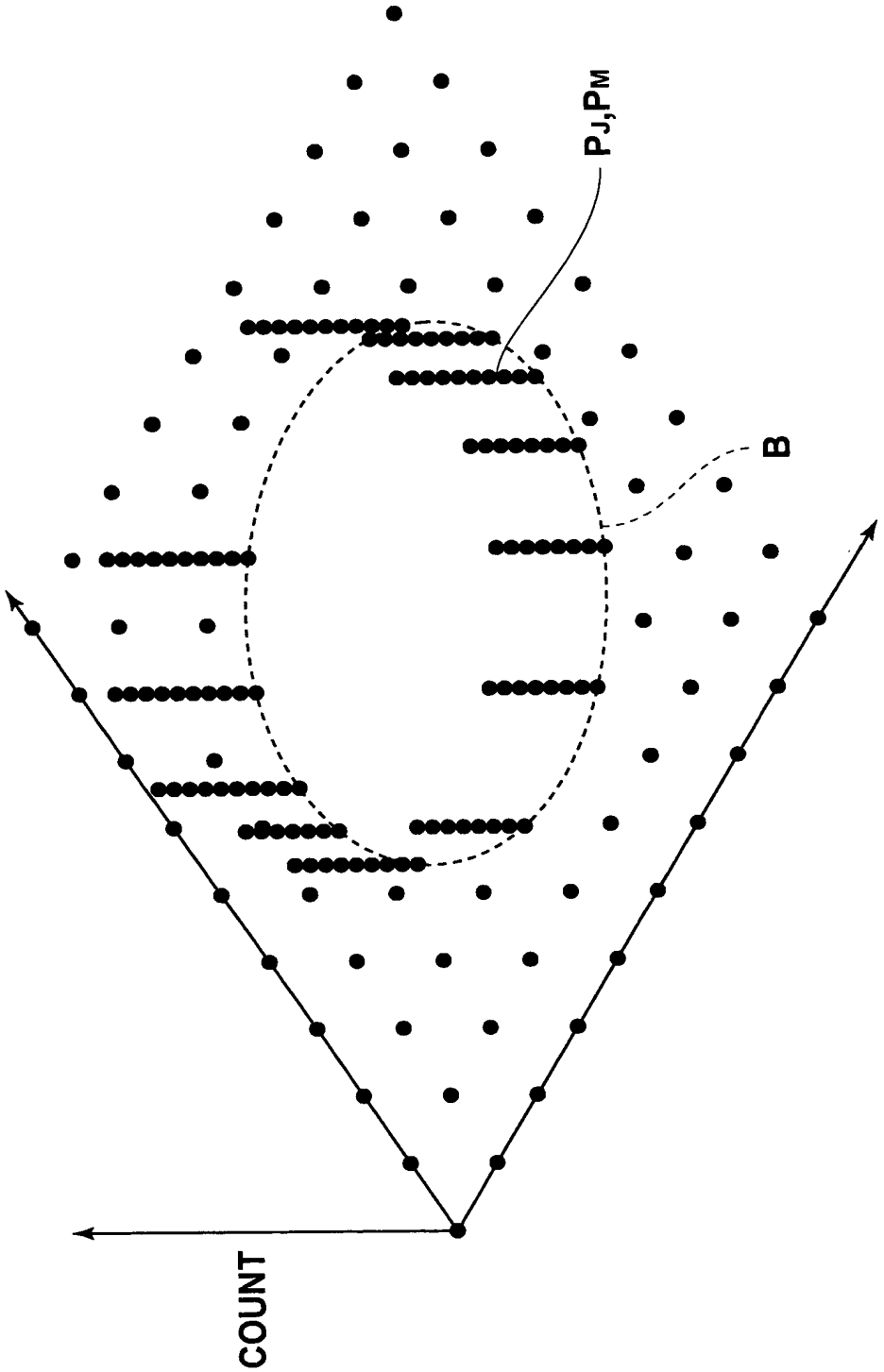


FIG.11

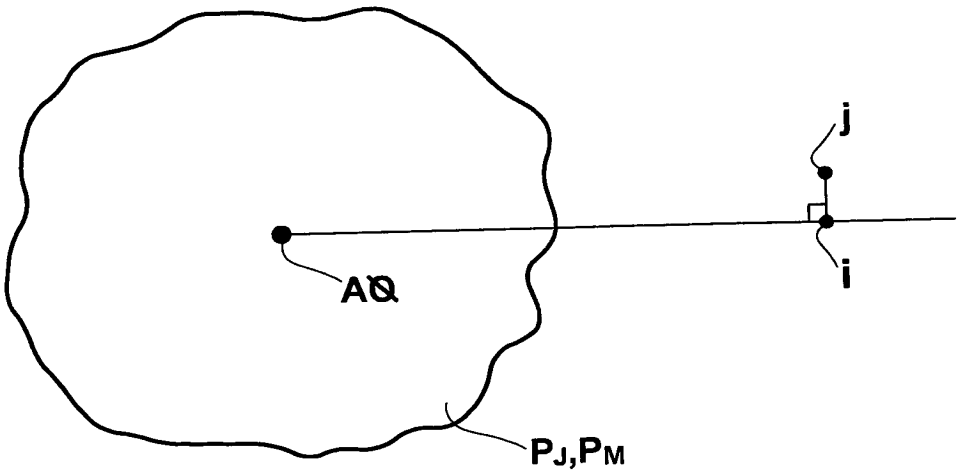


FIG.12

i \ j	0	1	2	3	4	5	6	7	8	9	10
0	1										
1		1									
2											
3											
4											
5				2							
6											
7											
8											
9											
10											

FIG.13

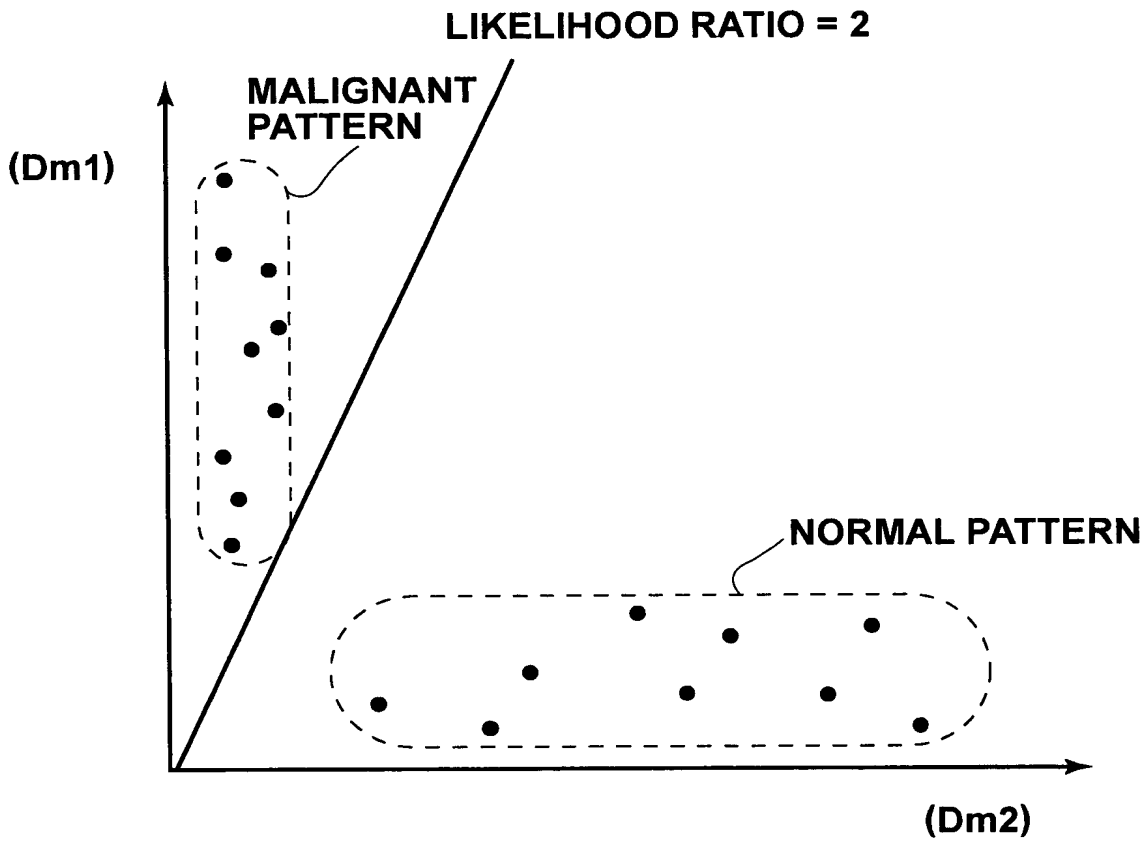

LIKELIHOOD RATIO = 2
MALIGNANT PATTERN
(Dm1)
NORMAL PATTERN
(Dm2)

FIG.14

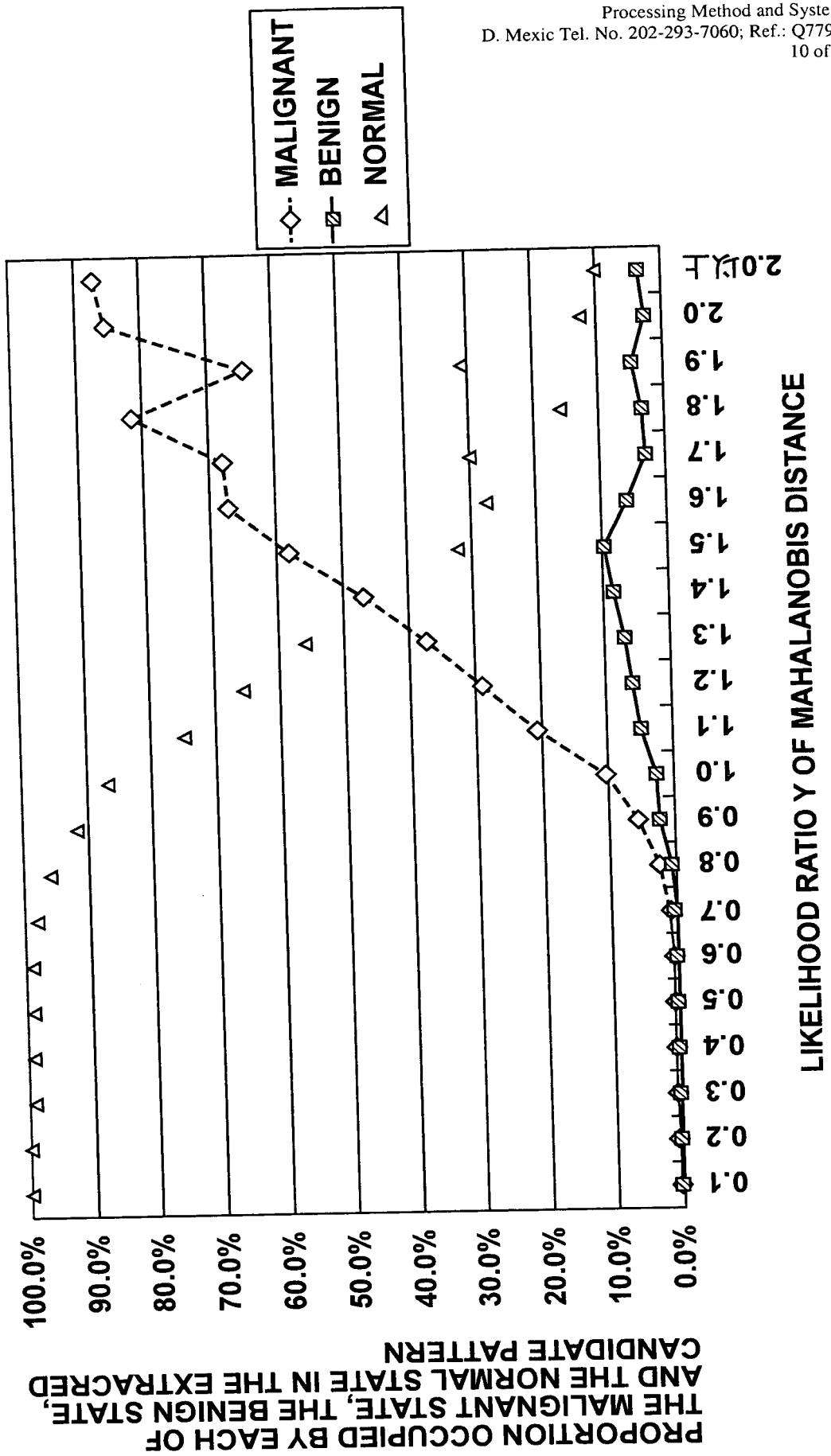

MALIGNANT
BENIGN
NORMAL
100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
PROPORTION OCCUPIED BY EACH OF THE MALIGNANT STATE, THE BENIGN STATE, AND THE NORMAL STATE IN THE EXTRACRED CANDIDATE PATTERN
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.0以上
LIKELIHOOD RATIO Y OF MAHALANOBIS DISTANCE

FIG.15

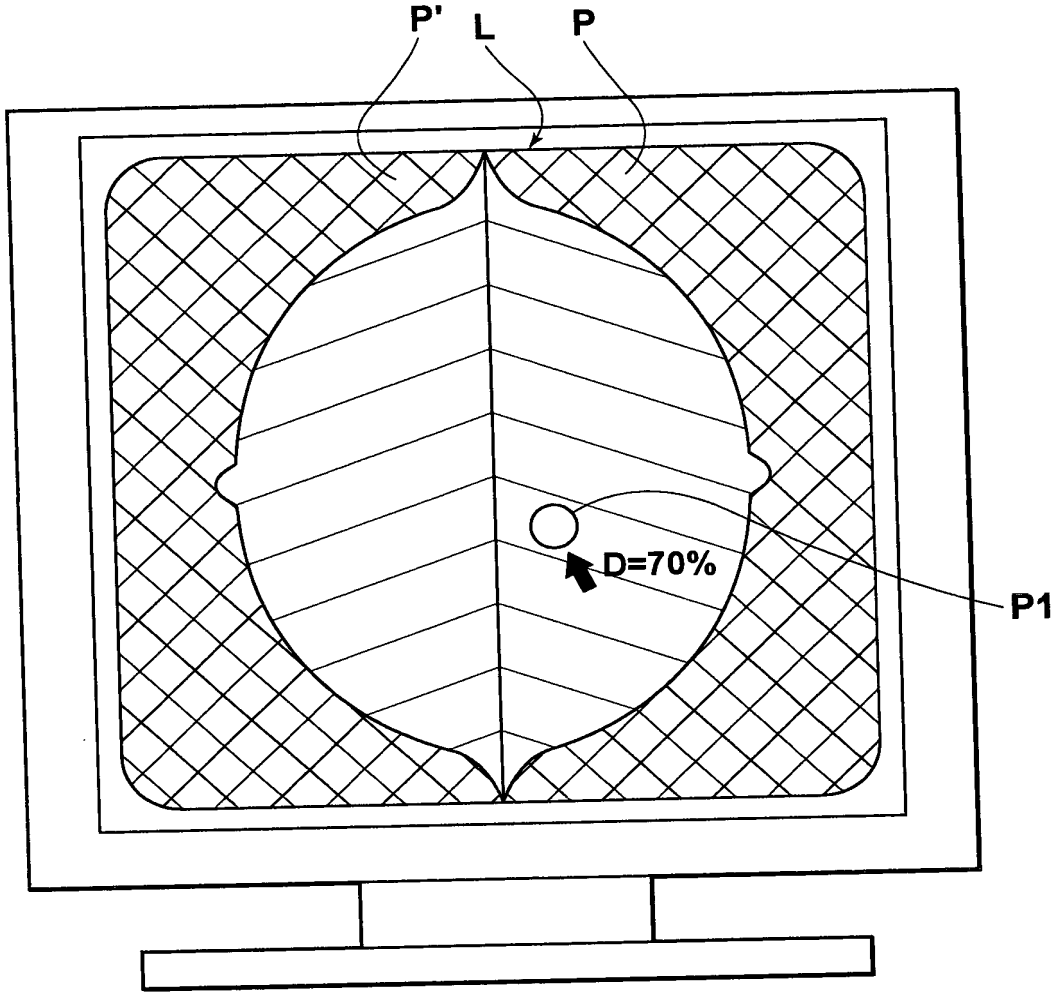


FIG.16

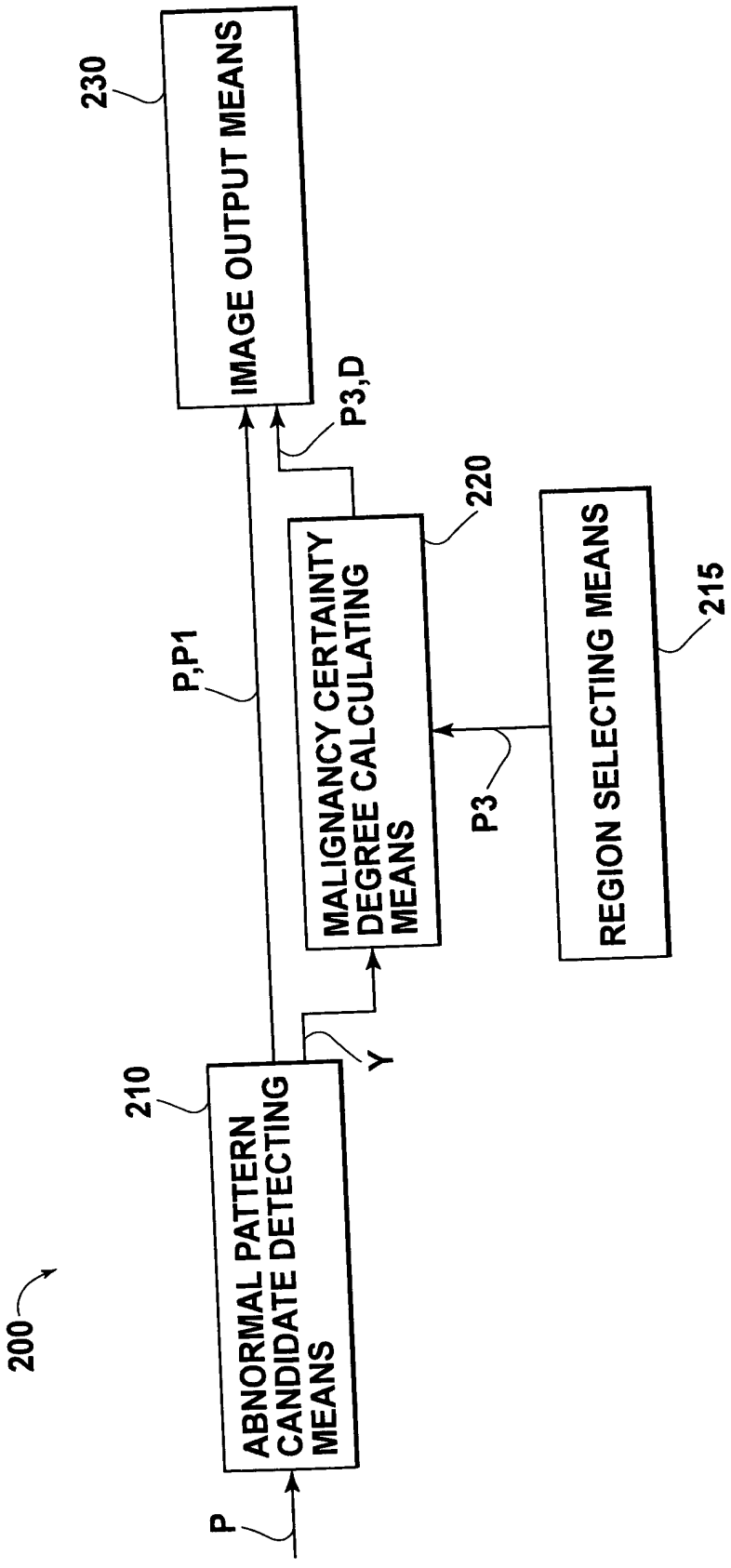
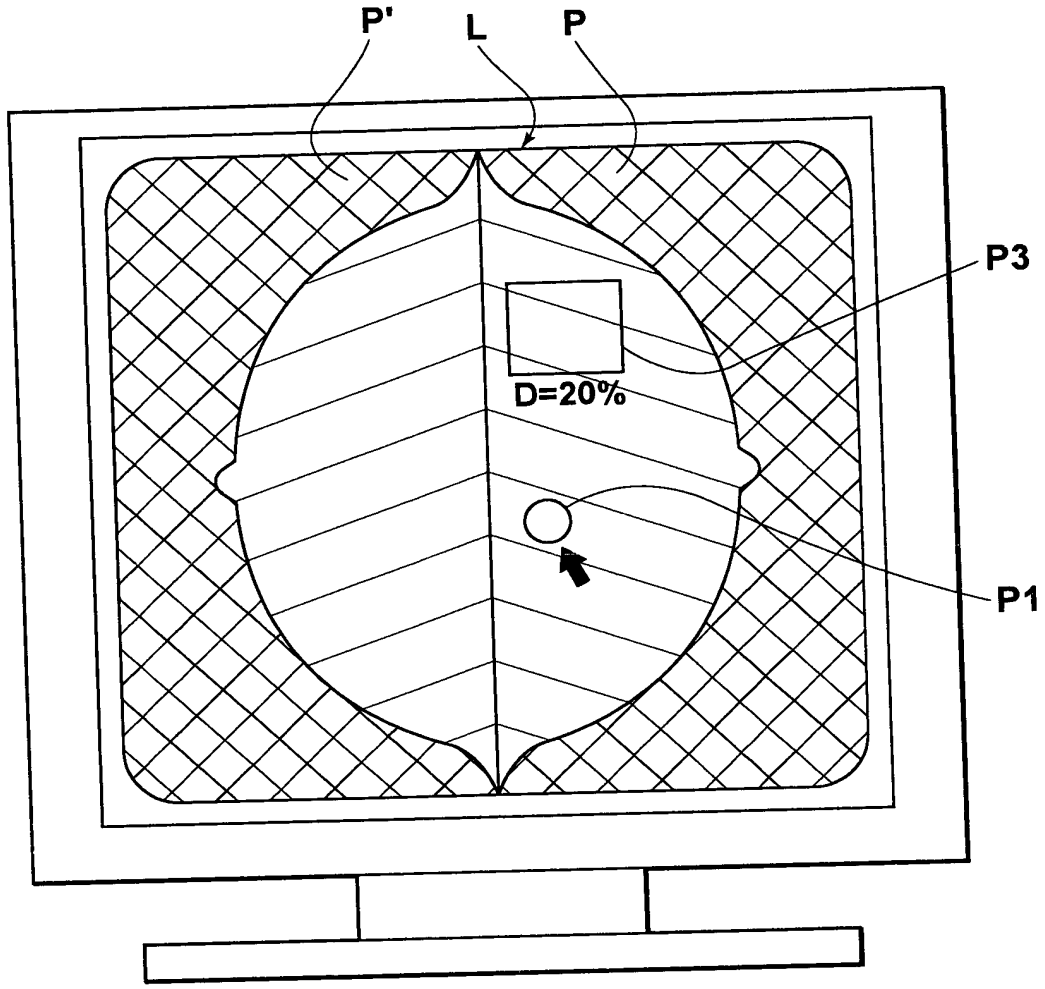

200
ABNORMAL PATTERN CANDIDATE DETECTING MEANS
210
P
Y
MALIGNANCY CERTAINTY DEGREE CALCULATING MEANS
220
REGION SELECTING MEANS
215
P3
P,P1
P3,D
IMAGE OUTPUT MEANS
230

FIG.17



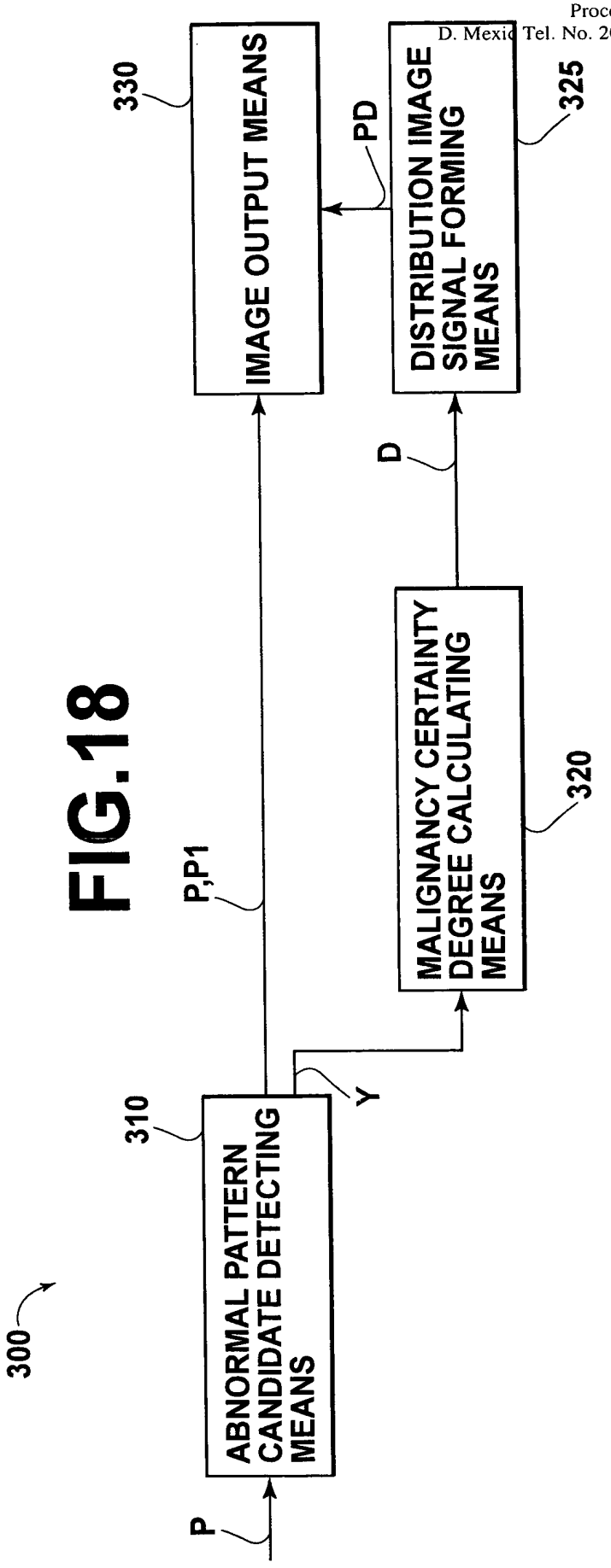

300
ABNORMAL PATTERN CANDIDATE DETECTING MEANS
310
P
P,P1
Y
MALIGNANCY CERTAINTY DEGREE CALCULATING MEANS
320
D
DISTRIBUTION IMAGE SIGNAL FORMING MEANS
325
PD
IMAGE OUTPUT MEANS
330

FIG.18

FIG.19

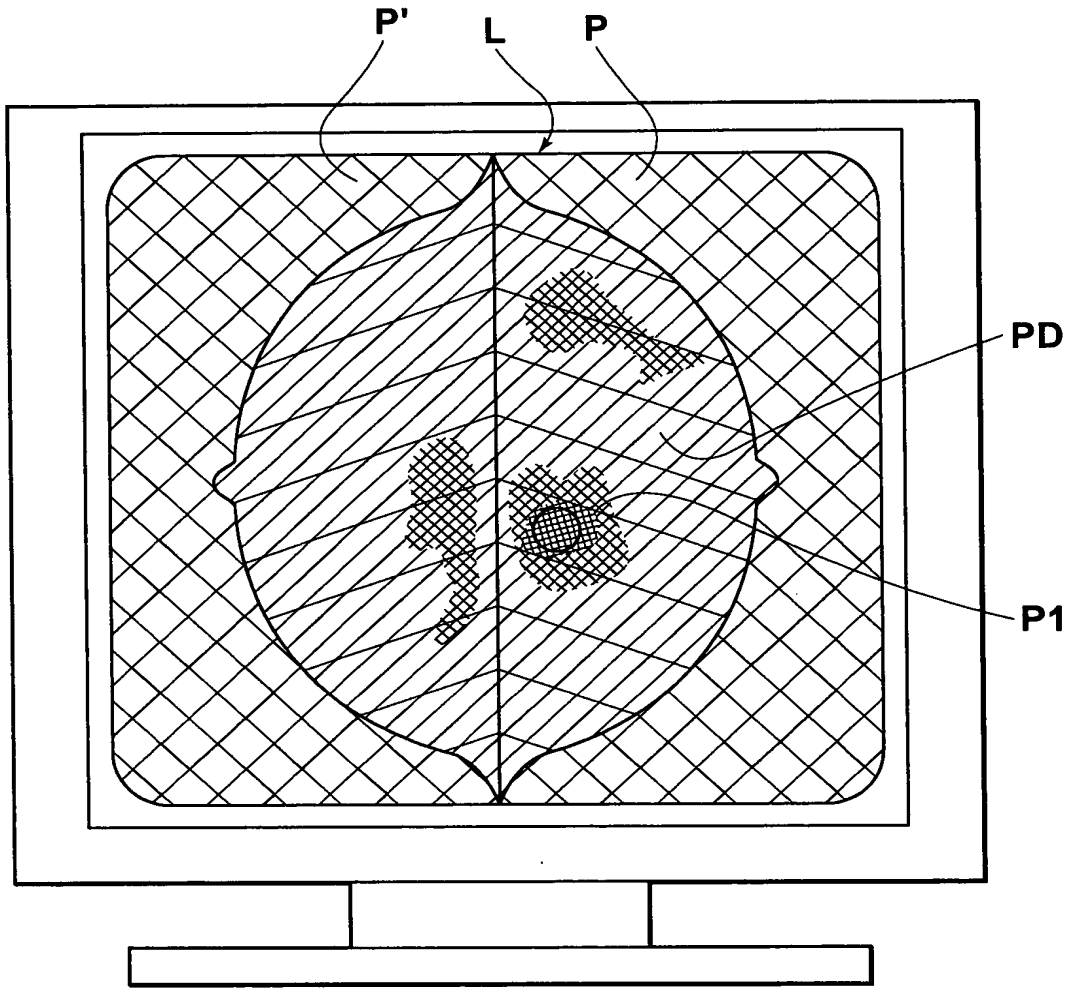
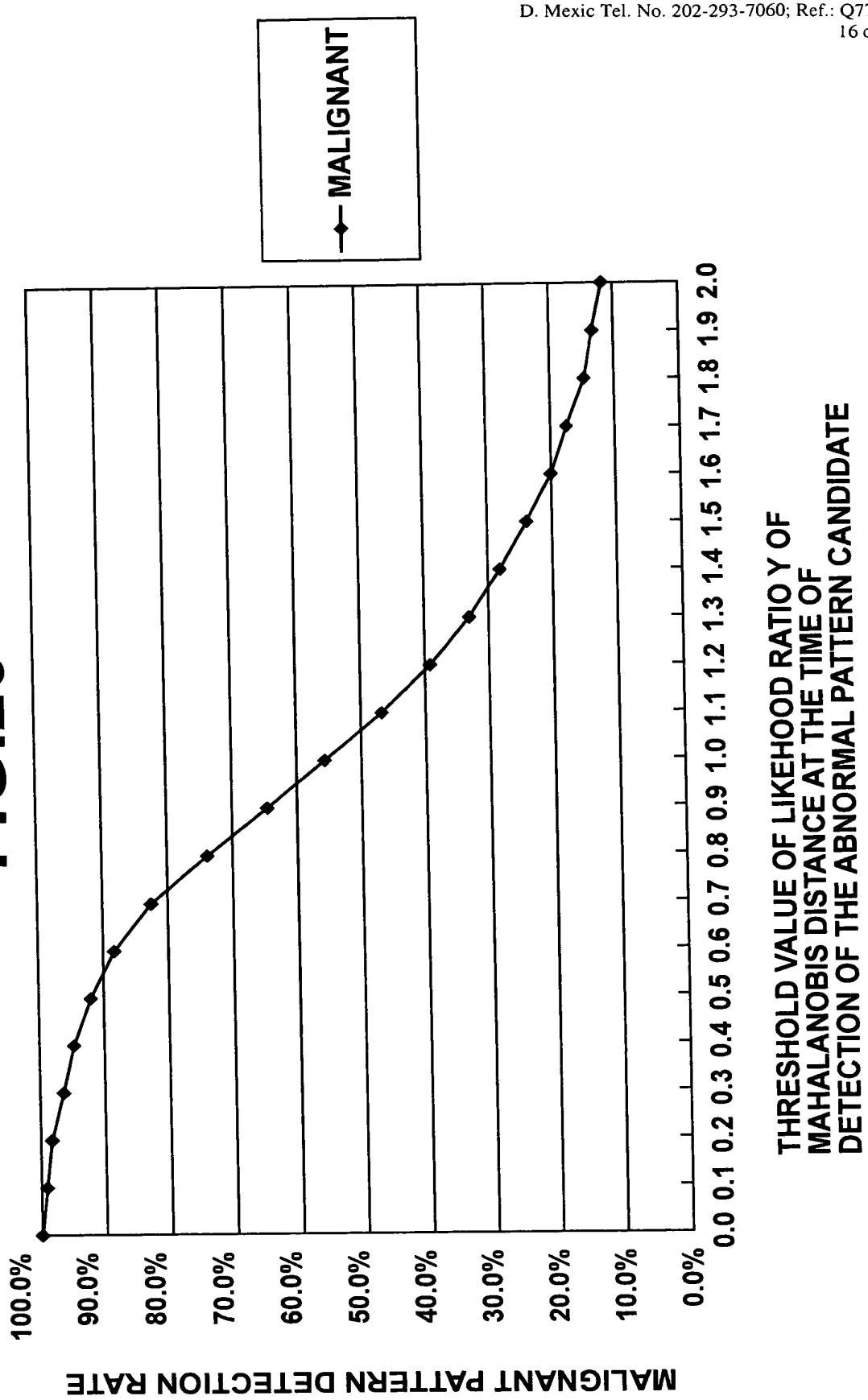


FIG.20


MALIGNANT
MALIGNANT PATTERN DETECTION RATE
100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0
THRESHOLD VALUE OF LIKEHOOD RATIO Y OF MAHALANOBIS DISTANCE AT THE TIME OF DETECTION OF THE ABNORMAL PATTERN CANDIDATE

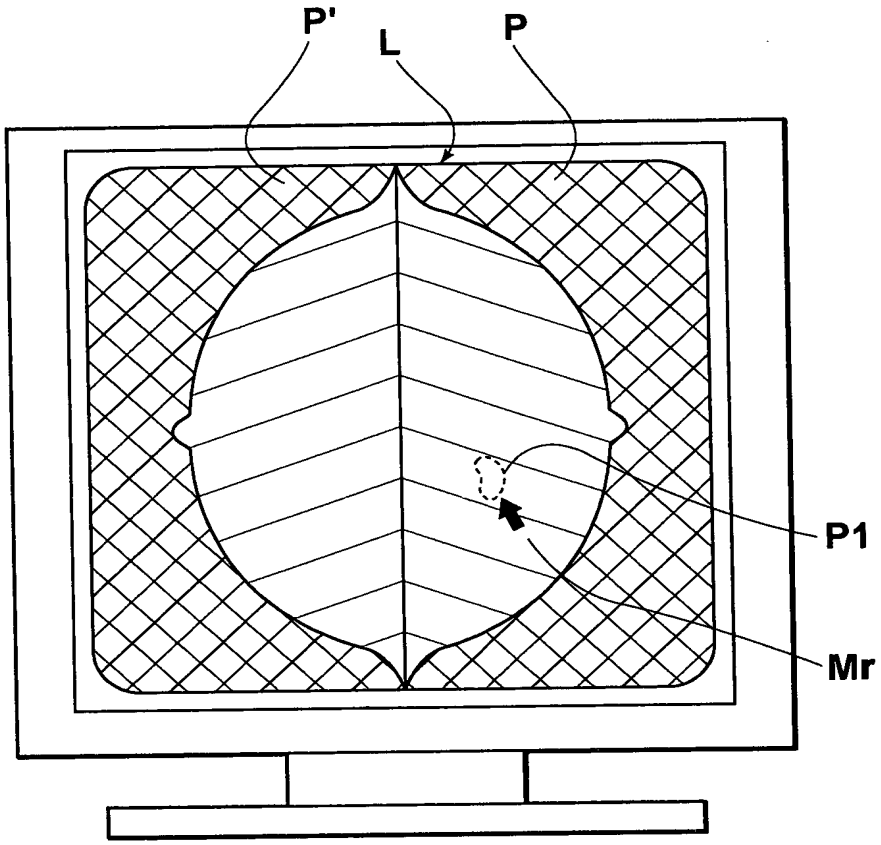



FIG.21